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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,839	12/19/2006	Jean-Luc Bernard	291090US0X PCT	7582
22850	7590	11/19/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			ZHU, WEIPING	
			ART UNIT	PAPER NUMBER
			1793	
			NOTIFICATION DATE	DELIVERY MODE
			11/19/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/580,839	<b>Applicant(s)</b> BERNARD ET AL.	
	<b>Examiner</b> WEIPING ZHU	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7,10 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1, 3, 4, 6, 7, 10 and 17-21 are currently under examination, wherein the claims 1 has been amended and the claims 17-21 have been newly added in applicant's amendment filed on July 7, 2009. Claims 2, 8 and 9 have been cancelled in the same amendment.

### ***Status of Previous Rejections***

2. The previous rejection of claims 1-10 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and the previous rejections of claims 1-10 under 35 U.S.C. 103(a) as stated in the Office action dated April 9, 2009 have been withdrawn in light of applicant's amendment filed on July 7, 2009. New ground of rejection has been established as follows.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4, 6, 7, 10 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-240392 A in view of JP 09-157780 A.

With respect to claims 1, 3, 4, 6, 7, 10 and 17-21, JP ('392 A) discloses a Co base alloy having by wt. % a composition as shown in the table below (abstract).

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Elements	Instant Claims	JP ('392 A)	Overlapping Ranges
Cr	23-34	22-37	23-34
Ni	6-12	5-15	6-12
Hf		0.1-5	
Ti	0.2-5		
Zr	0.2-5	0.005-0.1	
Ta	0-7	5-12	5-7
C	0.2-1.2	0.22-1.2	0.22-1.2
Si	Less than 1	0.01-2	0.01-1
Mn	Less than 0.5	0.01-2	0.01-0.5
Co	Balance	Balance	

The contents of Cr, Ni, Ta, C, Si and Mn as disclosed by JP ('392 A) overlap the contents respectively as claimed in the instant claims 1, 3, 10, 17 and 21. JP ('392 A) does not disclose the contents of Zr and Ti as claimed in the instant claims 1, 6, 7, 19 and 20. JP ('780 A) discloses a Co based alloy containing by weight 0.2-0.7% of Zr and 0.1-0.4% of Ti (paragraphs [0019] and [0021], orally translated by a USPTO translator). It would have been obvious to add by weight 0.2-0.7% of Zr and 0.1-0.4% of Ti to the alloy of JP ('392 A) as disclosed by JP ('780 A) in order to improve the corrosion resistance and high temperature strength of the alloy respectively as disclosed by JP ('780 A) (paragraphs [0019] and [0021], orally translated by a USPTO translator). The contents of Zr and Ti as disclosed by JP ('780 A) overlap the contents respectively as claimed in the instant claims 1, 6, 7, 19 and 20. A prima facie case of obviousness is established. See MPEP 2144.05 I. The claimed Fe content of less than 3% does not require the presence of Fe, because the claimed content also includes the 0%. The (Zr or Ti + Ta)/C ratios of JP ('392 A) in view of JP ('780 A) would obviously overlap the (Zr or Ti + Ta)/C ratios as claimed in the instant claims 4 and 18 because the contents of Zr or Ti, Ta and C as disclosed by JP ('392 A) in view of JP ('780 A) overlap the claimed

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contents of Zr or Ti, Ta and C respectively as discussed above. JP ('392 A) further discloses that Cr would dissolve in the matrix (i.e. Co) as a solid solution to enhance the elevated temperature oxidation resistance of the alloy (paragraph [0007], machine translation). With respect to the amended feature of excluding Hf in the claimed composition, the transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristic(s) of the claimed invention. See MPEP 2111.03. In the instant case, some additives still can be included as desired in the composition to achieve desired properties. The Hf is added to the composition of JP ('392 A) in view of JP ('780 A) to increase the abrasion resistance and elevated temperature oxidation resistance of the alloy (paragraph [0009], machine translation). The applicant has not provided the evidence to show that the addition of Hf in the prior art would materially change the characteristics of the instant composition. Therefore, JP ('392 A) in view of JP ('780 A)'s composition still meets the limitations of the instantly claimed composition.

### ***Response to Arguments***

4. The applicant's arguments filed on July 7, 2009 have been fully considered but they are moot in light of new ground of rejection as stated above.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

WZ

10/1/2009